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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/608,491

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EXAMINER

BATES, KEVIN T

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/608,491	Applicant(s) HANNEL ET AL.	
	Examiner KEVIN BATES	Art Unit 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-44 is/are pending in the application.
- 4a) Of the above claim(s) 1-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

This Office Action is in response to a communication made on July 23, 2009.

Claims 1-27 have been withdrawn as non-elected claims.

Claims 28 – 44 are pending in this application.

Election/Restrictions

This application contains claims 1-27 drawn to an invention nonelected in the reply filed on August 6, 2007. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Response to Arguments

Applicant's arguments filed July 23, 2009 have been fully considered but they are not persuasive.

The applicant argues that the office action issued April 28, 2009 had failed to provide adequate clarity of the rejection which as result did not in effect make a prima facia rejection and any following action should be made non-final (See applicant's response, pg 14).

The examiner disagrees, while it is unfortunate that the applicant did not understand the rationale behind the claim rejection, the examiner believes the rejection is clear enough in light of the prosecution history and the listed explanation of the rejection to make a prima facia case on the application. The examiner reminds the

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applicant that if there are any questions regarding the rationale of any rejection made by the office, the proper form of clarification is an applicant initiated interview and not an formal response to the rejection requesting clarification.

In an attempt to further prosecution, the examiner has provided a more full explanation of the grounds of rejection regarding the Ahlard reference below:

Tuomenoska teaches a system for a first computing device (client) to establish a connection with a second device through an intermediately device, the network device (See Fig. 14-16B; Col. 31, lines 14 – 23; Col. 29, lines 57-65). Tuomenoska further describes the method of setting up those tunnels involve a control system receiving the request to start the tunnel and send configuration information to the disclosed gateways (See Fig. 4; Col. 30, lines 45 – 57). The instant application was amended to recite the new limitations of

the second computing device processing a start request to establish a communication channel to the first computing device on a first network through the network device

the second computing device receiving a mirror request from the first computing device over the communication channel on the first network, the mirror request specifying the network device

the second computing device sending a request granted packet to the first computing device over the communication channel

which distinguished from Tuomenoska's system because the requests from the client to create a gateway were not directly received from the terminating device of the disclosed tunnel (second computing device.

To cure the deficiency, the examiner has cited the new reference, Alhard. Alhard teaches an improvement towards the creation of tunnels in a networked system. As part of Alhard's teaching the system allows the client device (which in Tuomenoska has been associated with the first computing device) to initiate the tunnel connection by sending messages straight to the terminating server, wherein the client initiated establishment of the tunnel involves the start request (Col. 5, lines 55 – 64), a request to access a particular device with the connection from the client (Col. 6, lines 13-15), and receiving a response from the VPN server acknowledging the connection (Col. 5, line 65 - Col. 6, line 10). It is important to note that the VPN client can be an element of the client device (Col. 4, lines 14 – 16).

As result, the teaching of Alhard, can be used to improve the system of Tuomenoska. Alhard provides the teaching which allows tunnels for a client to be created without a use of a central controller. The result of the combination is an improved Tuomenoska which allows the requests to go straight from the clients (first computing devices) to the gateway tunnel connection to setup the tunnel, which acts to configure the tunnel on its own without any intervention by a central controller.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36-37, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuomenoksa (7181542) in view of Ahlard (7461157).

Regarding claim 36, Tuomenoksa teaches a method for allowing a computing device to access the capabilities of a network device via a virtual interface comprising:

the second computing device establishing over a first network a communication channel with the computing device (Col. 30, lines 45 – 57);

the second computing device associating a network interface of the network device with the communication channel (Col. 29, lines 57 – 65);

the second computing device receiving over a second network incoming data units directed to the network interface of the network device (Col. 31, lines 14 – 23);

the second computing device forwarding the incoming data units to the computing device via the communication channel (Col. 31, lines 14 – 23).

Tuomenoksa does not explicitly indicate the second computing device processing a start request to establish a communication channel to the first computing device on a first network through the network device

the second computing device receiving a mirror request from the first computing device over the communication channel on the first network, the mirror request specifying the network device

the second computing device sending a request granted packet to the first computing device over the communication channel.

Ahlard teaches a system for establishing network tunnels that includes the client initiating the connection and requesting the establishment of the tunnel, the server granting the tunnel request, and the client establishing the tunnel (Col. 5, line 55 – Col. 6, line 10; Col. 6, line 39 – 48; Col. 4, line 14-15).

It would have been obvious to one of skill in the art at the time the invention was made to use Ahlard's teaching of allowing the client communicate directly with the tunnel destination to simplify the process of creating the secure tunnel in Tuomenoka.

Regarding claim 39, Tuomenoksa teaches a network testing system (Col. 21, lines 1 – 4) having a processor, a memory, an operating system, and at least one network card, the processor to execute instructions stored in the memory to cause the network testing system to perform operations comprising

the network testing system opening over a first network a communication channel with a computing device (Col. 30, lines 45 – 57)

the network testing system associating a network interface of a network device included in one of the network cards with the communication channel (Col. 29, lines 57 – 65)

the network testing system receiving over a second network incoming data units directed to the network interface of the network device (Col. 31, lines 14 – 23)

the network testing system forwarding the incoming data units to the computing device via the communication channel (Col. 31, lines 14 – 23).

Tuomenoksa does not explicitly indicate the second computing device processing a start request to establish a communication channel to the first computing device on a first network through the network device

the second computing device receiving a mirror request from the first computing device over the communication channel on the first network, the mirror request specifying the network device

the second computing device sending a request granted packet to the first computing device over the communication channel.

Ahlard teaches a system for establishing network tunnels that includes the client initiating the connection and requesting the establishment of the tunnel, the server granting the tunnel request, and the client establishing the tunnel (Col. 5, line 55 – Col. 6, line 10; Col. 6, line 39 – 48; Col. 4, line 14-15).

It would have been obvious to one of skill in the art at the time the invention was made to use Ahlard's teaching of allowing the client communicate directly with the tunnel destination to simplify the process of creating the secure tunnel in Tuomenoka.

Regarding claims 37 and 40, Tuomenoksa teaches the method of claims 36, and 39, further comprising: receiving via the communication channel outgoing data unit requests from the computing device, the outgoing data unit requests including an identifier of a specified network interface (Column 10, lines 17 – 31); transmitting outgoing data units pursuant to the outgoing data unit requests onto the second network via the specified network interface (Column 8, lines 55 – 67).

Regarding claims 38, and 41, Tuomenoksa teaches the method of claims 36, 39, and 42 wherein the establishing the communication channel includes using a transmission control protocol (TCP) socket to create a tunnel (Fig 15).

Claims 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuomenoksa in view of Ahlard, and in further view of examiner's official notice.

Regarding claim 42, Tuomenoksa teaches a machine readable medium having instructions stored thereon which when executed by a processor cause a network card to perform operations comprising

the device establishing a communication channel over a first network with a computing device (Col. 30, lines 45 – 57)

the device associating a network interface of a network device included in the network card with the communication channel (Col. 29, lines 57 – 65)

the device receiving over a second network incoming data units directed to the network interface of the network device (Col. 31, lines 14 – 23)

the device forwarding the incoming data units to the computing device via the communication channel (Col. 31, lines 14 – 23).

Tuomenoksa does not explicitly the second computing device processing a start request to establish a communication channel to the first computing device on a first network through the network device

the second computing device receiving a mirror request from the first computing device over the communication channel on the first network, the mirror request specifying the network device

the second computing device sending a request granted packet to the first computing device over the communication channel

or a network card performs those instructions.

Ahlard teaches a system for establishing network tunnels that includes the client initiating the connection and requesting the establishment of the tunnel, the server granting the tunnel request, and the client establishing the tunnel (Col. 5, line 55 – Col. 6, line 10; Col. 6, line 39 – 48; Col. 4, line 14-15).

It would have been obvious to one of skill in the art at the time the invention was made to use Ahlard's teaching of allowing the client communicate directly with the tunnel destination to simply the process of creating the secure tunnel in Tuomenoka.

Examiner takes Official Notice (see MPEP § 2144.03) that "a network card can be programmed to perform the functions as described in claim 42, instead of just emulating a network card as disclosed in Tuomenoska (see Col. 15, lines 23 – 29)".

The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03, namely, "if applicant traverses such an assertion, the examiner should cite a reference in support of his or her position". However, MPEP § 2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances

justifying the judicial notice)." Specifically, In re Boon, 169 USPQ 231, 234 states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Regarding claim 43, Tuomenoksa teaches the medium of claim 42, further comprising: receiving via the communication channel outgoing data unit requests from the computing device, the outgoing data unit requests including an identifier of a specified network interface (Column 10, lines 17 – 31); transmitting outgoing data units pursuant to the outgoing data unit requests onto the second network via the specified network interface (Column 8, lines 55 – 67).

Regarding claim 44, Tuomenoksa teaches the medium of claim 42 wherein the establishing the communication channel includes using a transmission control protocol (TCP) socket to create a tunnel (Fig 15).

Claims 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuomenoksa in view of Ahlard, and in further view of Aysan (7379465) Acharya (6894999).

Regarding claims 28 and 32, Tuomenoksa teaches a system comprising:

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a first computing device coupled to a first network (Col. 3, lines 41 – 44; the first processor);

a second computing device having a network device included therein, the network device coupled to a second network, the second computing device coupled to the first network (Col. 3, lines 41 – 44, where the second network device is the additional processor; see also Figure 15), the second computing device including software which when executed causes the second computing device to perform operations comprising:

accepting a connection request from the first computing device over a communication channel on the first network (Col. 3, lines 44 – 50), the connection request causing the second computing device to wait on the communication channel for additional request from the first computing device;

forwarding to the first computing device via the communication channel incoming data units received by the network device over the second network (Col. 3, lines 44 – 50),

receiving from the first computing device via the communication channel outgoing data unit requests to send outgoing data units onto the second network via the network device (Col. 3, lines 55 – 59).

Tuomenoksa does not explicitly indicate the second computing device processing a start request to establish a communication channel to the first computing device on a first network through the network device

the second computing device receiving a mirror request from the first computing device over the communication channel on the first network, the mirror request specifying the network device

the second computing device sending a request granted packet to the first computing device over the communication channel.

Ahlard teaches a system for establishing network tunnels that includes the client initiating the connection and requesting the establishment of the tunnel, the server granting the tunnel request, and the client establishing the tunnel (Col. 5, line 55 – Col. 6, line 10; Col. 6, line 39 – 48; Col. 4, line 14-15).

It would have been obvious to one of skill in the art at the time the invention was made to use Ahlard's teaching of allowing the client communicate directly with the tunnel destination to simply the process of creating the secure tunnel in Tuomenoka.

Toumensoksa does not explicitly indicate that the incoming packets are addressed to the network device as a destination or the outgoing packets requests include packet assembly parameters.

Aysan teaches a system for addressing packets to tunneled connection that includes addressing packets to the public interface at the entry point of the tunnel, which then gets forwarded through the tunnel to the destination (Col. 7, lines 48 - 54; Col. 8, lines 28 - 49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Aysan's teaching of tunnel addressing in Toumensoksa overcome the problem of too many tunnels sharing actual or virtual addresses.

Acharya teaches that after traveling through tunnels the packets received must be assembled by the egress gateway of the tunnel (Col. 7, lines 32 – 40) and that the formatting must be based on at least some parameters in the packets (Co. 8, lines 11 – 24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Acharya's teaching of formatting and assembly packets traveling through tunnels to overcome any problem of formats of different devices and networks.

Regarding claim 29, Tuomenoksa teaches the system of claim 28 wherein the communication channel is a tunnel (Col. 3, lines 44 – 50; see also Fig. 15).

Regarding claim 30, Tuomenoksa teaches the system of claim 29 wherein the first computing device includes a first tunnel device and the second computing device includes a second tunnel device, the tunnel established between the first tunnel device and the second tunnel device (Fig. 15).

Regarding claim 33, Tuomenoksa teaches the system of claim 32 wherein the first computing device includes a first communication device and the second computing device includes a second communication device, the communication channel established between the first communication device and the second communication device (Col. 3, lines 44 – 50).

Regarding claims 31 and 34, Tuomenoksa teaches the system of claims 30 and 33 wherein the first tunnel device and the second tunnel device are each network interface devices (Fig. 15).

Regarding claim 35, Tuomenoksa teaches the system of claim 32 wherein the first network is an Ethernet network (Col. 11, lines 27 – 44; Col 31, line 49).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN BATES whose telephone number is (571)272-3980. The examiner can normally be reached on M-F 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN BATES/

Primary Examiner, Art Unit 2456